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To: Donna Wieting	From: Luke Rendell <lrendell@is2.dal.ca>
Fax: (301) 713-0376	Pages: 6
Phone:	Date: 30/05/01
Re: LFAS FEIS and Proposed Rule	CC:

Dear Ms. Wieting,

Following are my comments on the NMFS Proposed Rule with respect to the U.S. Navy's SURTASS-LFA sonar system. I strongly believe that testing of this system should be suspended pending the adequate addressing of the points raised by myself and other concerned parties.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Luke Rendell'.

Luke Rendell

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Comments on the LFAS FEIS and NMFS Proposed Rule

Luke Rendell, Graduate Student,
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Thursday, May 10, 2001

I am a graduate student researching acoustic communication in cetaceans, with particular reference to sperm whales. I have 5 years relevant experience, including work on the effects of anthropogenic sound on cetaceans and cetacean vocal behaviour. I include below comments both on the LFAS FEIS and also the NMFS Proposed Rule, both of which I consider wholly inadequate and indicative of an intention to undermine regulatory process by the application of double standards, poor science and the glossing over of inconvenient evidence.

Comments on the FEIS

I submitted comments to the DEIS, in which I highlighted some areas of inconsistency, lack of knowledge and deliberate glossing of facts in the Navy approach to the EIS. With publication of the FEIS, these comments were supposed to be addressed; I find however that my points, often shared with many other commentators, have been inadequately addressed.

Comment 1-3.6

The Navy has developed some truly extraordinary powers during this EIS process; according to their response to the overwhelming opinion in commentaries that lack of information undermines the EIS, they assert that they have been able to overcome this by "3) quantifying uncertainties". Surely this ability makes LFAS entirely unnecessary!

Contrary to the Navy's assertions, the EIS has patently not "withstood careful evaluation from leading marine acousticians and biologists" – numerous commentaries remarked on how the EIS would be thrown out of any *scientific* review process; normally, during *scientific* review, results are not reviewed by those who obtained them, as is the case here.

Comment 4-4.18

The FEIS authors clearly have not taken on board the comments received about double standards with regards to external evidence – here we are cautioned that "gray whales inhabit a unique environment and ...their behaviour does not generalize to other species"; this in discussing the results of the SRP, which in other parts of the EIS is generalized extremely broadly to cover all cetacea. Which way does the Navy want it? Either accept the uniqueness of every species and thus accept the knowledge chasms which make assessing the impact of LFAS impossible, or accept broad generalizations and include

relevant evidence from all research on sound impacts, which means accepting the large body of evidence for harmful impacts at levels much lower than 180dB.

What is particularly disturbing in relation to this point is that it is one already made in my and others original commentary – the Navy applies double standards to evidence – and has not been addressed in the FEIS. I believe this is because applying internal consistency in the EIS would force an unpalatable conclusion upon the Navy. All faith in the EIS is undermined when one realises the double standards are all applied specifically to reach a desired conclusion – 180dB, thus a 1km and (somewhat) feasible visual monitoring mitigation. What is particularly saddening is that the NMFS accepts such flip-flopping. I and many others had expected better.

Comment 4-5.2

Experiments were not carried out with sperm whales because “no animals were encountered”! This hardly seems like the basis for a reasoned and objective analysis, particularly since they have been identified as a species of concern. This admission alone should be reason to halt the LFAS program until a comprehensive sperm whale research program with enough time to ensure that animals *are* encountered. Exclusion of beaked whales given the extreme concern raised by the Greece and Bahamas stranding is unacceptable. The FEIS is disingenuous regarding the conservation status of these species; it is worth pointing out that that all ziphid species listed by the IUCN are classified as “Insufficiently Known”¹, which is quite different from “Not threatened” as is clearly implied by the FEIS. Such facts only further highlight both the insufficient information available for this EIS and the disturbing willingness of the EIS authors to gloss over or downright obscure knowledge that doesn’t fit the conclusions.

Comment 4-6.5

Accepting a 95% risk level at 180dB carried with it disturbing implications regarding the risk levels at lower RLs. For example, the risk function on page 4.2-24 of the FEIS suggests 50% risk at 165dB – meaning that 50% of animals in an area that could cover hundreds of square nautical miles will be ‘biologically affected’. Can this really be called a “small take”?

Comments regarding the NMFS proposed rule

NMFS is rolling over like a puppy for the Navy and consequently undermining it’s ability to be taken seriously as a regulatory agency; the proposed mitigation measures are but a token gesture, as anyone who has tried to monitor cetacean behaviour at sea will know; this knowledge should be well within the NMFS field of expertise and hence it is inexcusable that they have recommended such woolly and loosely defined measures. Before discussing these issues however, I wish to discuss the propriety of a NMFS permit for a system with a planned global employment. While the NMFS may have jurisdiction

¹ Jefferson TA, Leatherwood S, Webber MA, 1993. FAO Species Identification Guide : Marine Mammals of the World. Rome: FAO.

to issue LOA's covering the U.S. EEZ, this area is a very small fraction of the proposed operating range. Why has (to my knowledge) no application been made to other nations to operate in their EEZs, nor any kind of approach been made through the UN to gain permission to operate this system which may impact animals thousands of miles away from US waters, in waters considered to be the common heritage of humankind? While such applications may not be required by the letter of the law, they are most certainly required under any sense of international morality, and by the spirit of the UNCLOS treaty. The lack of such efforts by the Navy and by the NMFS, and the assumption inherent in this whole process, that the NMFS is the only agency *in the world* that the Navy need approach for permission to deploy the LFAS, is arrogantly insulting to non-U.S. world citizens, and lacks the international morality we have a right to expect from world powers such as the U.S.A.

Lack of objectivity

An option that has never been considered seriously by the Navy, and sadly, the NMFS, is that *even with the best available scientific evidence*, our knowledge may be simply insufficient at this time to credibly assess the possible impacts of the LFAS system, and so deployment of the system should be postponed indefinitely, until an *independent* review committee ascertains that our knowledge has grown sufficiently to be able to accurately assess the impacts. Currently, I believe our knowledge *is* too limited to allow a credible assessment of the risks of LFAS. We simply know too little about the behaviour and movement, acoustic sensibilities, and significance of many behavioural changes in cetaceans to be able to predict impacts with any kind of credibility. Our abilities to follow animals in the long-term are extremely limited, and so we have *absolutely no way of knowing* what the longer term and subtler but no less significant impacts might be. It is simply insufficient in this case to say 'well, the whales didn't appear to die during the SRP' and let that be the guiding knowledge for impact assessment, the level at which most of this impact assessment process has been carried out. Our knowledge, despite the best available evidence, does not support the (pseudo)-'scientific' assertions made by the Navy and implicitly accepted by the NMFS, and in fact as the numerous commentaries by leading scientists around the world in response to the DLIS show, in many cases appear to directly contradict those assertions.

Unacceptable use of the term 'small take'

As questioned above, accepting a 95% risk level at 180dB carried with it disturbing implications regarding the risk levels at lower RLs. For example, the risk function on page 4.2-24 of the FEIS suggests 50% risk at 165dB – meaning that 50% of animals in an area that could cover hundreds of square nautical miles will be 'biologically affected'. Can this really be called a "small take"?

Unreasonable reliance on untried, apparently flawed and vague mitigations measures for take calculation

The mitigation measures are entirely insufficient; thirty minutes is an inadequate pre-transmission observation time since sperm whales can, and regularly do, dive for periods in excess of 45 minutes. Observing for just this period makes transmission while sperm whales are within the 180dB zone both likely and undetectable. The NMFS faith in Naval visual monitoring is highly misplaced – the recent failure of a U.S. submarine to visually detect an ocean-going Japanese fishing vessel near Hawaii, and the resulting tragedy, raises serious questions about how effective this can really be for small, hard to spot, cetaceans. As anyone who has looked for whales at sea can confirm, spotting whales visually becomes increasingly difficult at Sea State 4 and above, becoming virtually impossible except at very close ranges in Sea State 6 and above; this of course provided it is daytime and there is no fog. Yet nothing is said about mitigation measures in these, very likely, situations. Details are left out, to be 'interpreted' by the Navy. Unspecified details include :

- a) Who will be doing the searching?
- b) How many people aboard each vessel?
- c) What training will they receive?
- d) Will they be civilian or Navy personnel (since the Navy wants to show that the system is harmless, surely any Navy personnel assigned to the task will be confronting a significant conflict of interest)?
- e) If Navy personnel are to be used, what rank will they be (is it reasonable to expect a rating to risk their commanders displeasure by reporting cetaceans if the commander has previously expressed a strong desire to carry out LFAS transmissions, or if reporting such a sighting would lead to an increased risk of attack for that rating and his colleagues)?
- f) Will individual spotters performances be tested in any kind of trials?
- g) Will only the better spotters be assigned?
- h) How will the range to any animals seen be accurately determined in a seaway?
- i) How does the NMFS plan to ensure and monitor the effectiveness of these visual pre-transmission surveys?

Spotting cetaceans requires training and experience, and must be done right given that the consequences of not spotting them are exposure to injurious sound levels. If NMFS does not plan to test the effectiveness of the visual monitoring, then the LOA will be little more than a carte-blanche to the Navy to transmit as and when it pleases.

Inadequacy of long term research program

Further to the above, assigning just fifteen minutes as a post-transmission monitoring period is a joke; it will barely allow time for one thorough visual sweep of the horizon. Again details are absent :

- a) Just what kind of useful data on post-transmission behaviour can be collected in this time?
- b) Exactly what data will be recorded?

- c) Who will be doing the observing – the rating who drew the short straw or a trained cetacean observer?
- d) Where will this data go, and who will review it?
- e) How will it be analysed, and where will it be published?

All these questions are left unanswered by the NMFS and give the Navy huge 'discretion' to interpret the guidelines as they will. The public must be told more about this whole monitoring process, and answers to the questions posed here must be made publicly and unambiguously so that the Navy knows what is expected, and so the public knows that their concerns are being taken seriously.

The fig-leaf of national security

Finally, given all the elaborate attempts to cover up lack of knowledge and vague proposals for mitigation measures, I am astonished and disgusted that the Navy's desire for the cover-all exemption of 'combat conditions' (does this equate with "heightened threat" in the FEIS?) to give them the ability to disregard any and all mitigation and reporting procedures has been allowed through the NMFS permitting process. In fact, in the FEIS p10.41, we learn that 'heightened threat' has an extremely broad definition for the Navy – "military forces must be prepared to protect themselves at all times" and includes operations "where the use or threat of forces is **not** [my emphasis] planned"; it wouldn't be much of a stretch for any Admiral to equate this definition with 'going to sea' for naval forces. The mysterious, unaccountable, National Command Authority can give the Navy freedom to operate how and when they please at the mere sweep of a uniformed arm. Once this blanket has descended, then the public's knowledge stops. The fig leaf of national security will allow retroactive covering up of cetacean mortality, and any observations which contradict the Navy, and sadly, the NMFS, line that LFAS is not a threat to cetaceans, will simply be buried. There is *nothing* in the NMFS proposal to convince anyone that this will not happen. The NCA get-out clause makes the whole permitting and impact process something of a farce. What good will the mitigation measures be if significant proportions of beaked whale populations (see comments by H. Whitehead) start beaching dead in the waters of a zone of tension between the US and another nation? "Heightened threat" cries the NCA, and the LFAS system sails on.

In conclusion I call upon the NMFS to withhold permission for the U.S. Navy to continue with the LFAS program until the processes behind the strandings in the Mediterranean and the Bahamas are fully understood, and until independent review panels consider our knowledge to have improved sufficiently that LFAS impacts can be reasonably assessed drawing on *all* available evidence, until permission has been sought and obtained from *all* signatories to the UNCLOS treaty and until the massive public concern evidenced by the number of comments, almost entirely negative, submitted during the FIS and rulemaking process, has been adequately addressed. For the NMFS to grant a letter of authorization in the face of such concerns and opposition would undermine the very democratic principles held dear by the U.S.A. and that the LFAS system is supposed to defend.